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EXAMINER

AFSHAR, KAMRAN

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/786,132	Applicant(s) GAZZARD, DARYL	
	Examiner Kamran Afshar, 571-272-7796	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/11/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 13-17 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - Claims 1-12 and 18 (**Group I**), drawn to a handover process between a home network and visiting, partner, and / or roaming network and determining if the HO candidate cell belongs to the home network and sending information via control channel to the mobile station, which is classified in class 455, subclass 436, 434.
 - Claims 13-17 and 19-21 (**Group II**), drawn to Handover of a GPRS communication between a home network and visiting, partner, and / or roaming network and determining if the HO candidate cell belongs to the home network via sending packet measurement list to the mobile station, which is classified in class 370, subclass 328, 525

The inventions are distinct, each from the other because of the following reasons:

2. Inventions group I and group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of group II has separate utility such as determining if the HO candidate cell belongs to the home network and sending information via control channel to the mobile station. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with **Mr. Lawrence D. Eisen, Reg. No.: 41, 009** on 4/11/2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-12 and 18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-17 and 19-21 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 recite word(s) " understandable " and / or " likelihood " which renders the claim 18 indefinite because the claim 18 is not clear as to what are positively claimed.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Holma (U.S. Pub. No.: 2002/0105927 A1).

With respect to claims 1, 5, Applicant broad formulation of independent claims 1 is such that its subject matter can be read onto the prior art of (i.e. Holma (U.S. Pub. No.: 2002/0105927 A1)). Holma in detail discloses a method for selecting a cell for handover of a continuing communication, wherein the communication is initially routed through a first cell (See e.g. 86 or 72 of Fig. 2) of a partner mobile network (See e.g. 72, 74 or 82, 86 of Fig. 2, visiting network, second network, roaming network, home

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network, own network, etc., Page 1-2, ¶ [0009]), comprising: setting a flag (See e.g. handover triggering threshold, Step 90 of Fig. 3) inherently with respect to a communication that is being carried on a partner mobile network (See e.g. 72, 74 or 82, 86 of Fig. 2) as including a mobile station of a subscriber (See e.g. 10 of Figs 1-2) of a home mobile network (See e.g. 10 of Figs. 1-2 & Page 3, ¶ [0035]); determining that a handover from a first cell in the partner mobile network to a second cell among a plurality of candidate cells, is necessary to maintain communications for the mobile station (See 72, 74, 1st list (78), 2nd list(76) and / or 82, 86, 1st (86) of Fig. 2); and initiating a handover of the communication from the first cell to the second cell if the second cell belongs to the home mobile network, wherein whether the second cell belongs to the home mobile network is determined (See e.g. Flow Diagram of Figs. 3 and 4), at least in part, by evaluating whether the flag is set (See e.g. handover criteria , handover trigger, RSSI, Page, 2, ¶ [0030]), home cell list, neighbor cell list, system information message, etc., Page, 3, ¶ [0037]).

Regarding claim 2, Holma discloses prior to the handover, radio parameters associated with the second cell belonging to the home mobile network are received by the partner mobile network (See e.g. OP1, OP2, home cell list, neighbor cell list, system information message, etc., Page, 3, ¶ [0037] & Fig. 4).

Regarding claim 3, it is inherent that each of the partner and the home mobile networks operates its own mobile switching center (See Holma, e.g. GSM, WCDMA network and / or operator, Page 1, ¶ [0003]).

Regarding claim 4, Holma discloses prior to the communication handover, the partner mobile network receives information including control channel (See e.g. BCCH, neighbor cell parameters, Page 3, ¶[0033]) and system parameters associated with the home mobile network (See e.g. home cell list, neighbor cell list, system information message and / or parameters, after receiving the measurement report, the handover decision is made, Page 3, ¶ [0033]).

Regarding claim 5, Holma discloses sending a handover request from the base station controller of the partner mobile network, the request including parameters (See e.g. BCCH, neighbor cell parameters, Page 3, ¶[0033]) associated with the second cell (See e.g. RNC of Fig. 2, Page 3, ¶ [0035]; receiving resource information from the home network at the base station controller of the partner

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network, the resource information including information associated with the second cell (See e.g. RNC, Page 3, ¶ [0036]); and sending information from the partner network at the mobile station of the subscriber to the home network, including an appropriate communications channel associated with the second cell (See e.g. OP1, OP2, home cell list, neighbor cell list, system information message, etc., Page, 3, ¶ [0037] & Fig. 4)).

Regarding claim 6, it is inherent that the control channel and system parameters associated with the home network are stored in a database (See e.g. NMS, Page 3, ¶ [0036]) accessible to the mobile switching center of the partner network (See e.g. Page 3, ¶ [0033]).

Regarding claim 7, it is inherent that the communication is a voice transmission (See e.g. on going call, Page 1, ¶ [0002]).

Regarding claim 8, Holma discloses receiving a communication at a base station controller of the partner mobile network that controls the first cell (See e.g. Page 3, ¶ [0036]), including at least one home mobile network channel (See e.g. Page 3, ¶ [0033]).

Regarding claim 9, Holma discloses monitoring measurement reports sent by the mobile station belonging to the subscriber of the home mobile network (See Page 3, ¶ [0033]), including a signal strength of the second cell controlling the at least one home mobile network channel (See e.g. Page 2, ¶ [0030], at the base station controller of the partner mobile network that controls the first cell; and excluding cells not reporting over the at least one home mobile network channel from further measurements (See e.g. Page 2, ¶ [0015]-[0016]).

Regarding claim 10, it is inherent that the communication is a GPRS message (See e.g. GSM/GPRS, Page 1, Lines 5-6 of ¶ [0003]).

Regarding claim 12, it is inherent the control channel and system parameters associated with the home network (See e.g. Page 3, ¶ [0033]) are stored in a database (See e.g. NMS, Page 3, ¶ [0035]) accessible to the serving GPRS support node of the partner network (See e.g. GSM/GPRS, Page 1, Lines 1-12 of ¶ [0003]).

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holma (U.S. Pub. No.: 2002/0105927 A1) in view of Hogan (U.S. Pub. No.: 2002/0151304 A1).

Regarding claim 11, Holma disclosed everything as discussed above in the rejected claim 1. In an analogous field of endeavor, Hogan more clearly discloses removing cells not belonging to the home network from a measurement list associated with the mobile station of the subscriber to the home network; and sending a measurement list to the mobile station of the subscriber to the home network, wherein the measurement list includes the second cell (See e.g. dropping, deleting or filtering rule for neighbor list, Flow chart of Fig. 4). Therefore, it would have been vigorously obvious to one ordinary skill in the art at the time of the invention to provide above teaching of Hogan to Holma to provide a method and system for inter-operator handovers, wherein unnecessary handover signaling is eliminated while a large number of cells are involved inter-system and / or inter-operator handover; and mobile terminal of an operator is always connected to its own / home network.

Allowable Subject Matter

11. Upon proper overcome of the **rejection** as discussed above in items 5-6, Claim 18 ^{will be} ~~is~~ allowed.

The following is an examiner's statement of reasons for allowance: .

With respect to claim ¹⁸ ~~5~~, is the closest prior art to the application invention, which discloses a database (See e.g. 112 of Fig. 1) storing information is in communication with the partner mobile network (See e.g. 106 of Fig. 1) and the home mobile network (See e.g. 118 of Fig. 1).

Admitted Prior Art (APA) discloses the handover method and system between home mobile network and partner mobile network (See APA e.g. Figs. 1-2). However the prior art of record fails to disclose singly or in combination or render obvious that establishing a flag convention recognized by a

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partner mobile network and a home mobile network, the flag indicating that a mobile station belongs to a subscriber to the home mobile network; setting the flag when the partner mobile network handles a communication to a mobile station belonging to a subscriber to the home mobile network; and handing over the communication back to the home mobile network whenever the mobile station enters a region in which the home network operates, the handover being effected due to the flag being set.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Haumont (U.S. Pub. No.: 2005/0064889 A1).

b) Pecen (U.S. Pub. No.: 2005/0202828 A1).

c) Hulkkonen (U.S. Pub. No.: 2004/0029587 A1).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Feild, Joseph** can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kamran Afshar


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER